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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/569,849	04/17/2007	Bernd Merle	117006.00022	1082
21324 7590 02/24/2010 HAHN LOESER & PARKS, LLP One GOJO Plaza Suite 300 AKRON, OH 44311-1076				
EXAMINER				
JENNISON, BRIAN W				
ART UNIT		PAPER NUMBER		
3742				
NOTIFICATION DATE		DELIVERY MODE		
02/24/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@hahnlaw.com  
akron-docket@hotmail.com

### Office Action Summary

**Application No.**

10/569,849

**Applicant(s)**

MERLE ET AL.

**Examiner**

BRIAN JENNISON

**Art Unit**

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 28-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date 8/6/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Response to Arguments***

1. Applicant's arguments with respect to claims 28-52 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments are directed towards the amended portion of the claims and are addressed in the new rejection below.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 28-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merle (US 5,130,518) in view of Thalmann et al (US 4,642,154).**

Merle teaches:

**Regarding Claims 28 and 46:** The current of the coil is monitored and the inductance must be monitored based on a current measurement. **See Column 7, 5-25.** A scanner receives data and defines the acceptable boundaries of the welding energy. **See Column 6, Lines 50-68.** A controller controls the welding energy and adjusts based on measured electrical parameters such as resistance. Applicant admits on page 8 of the reply that the resistance of the heating coil is measured as an electrical parameter.

**Regarding Claim 46:** Fig 1 shows a heating coil 1 with a welding power supply, two connecting lines h1 and h2, a control unit 8 which is connected to a voltage monitor and a current monitor which inductance may be calculated from and may adjust the welding parameters. **See Column 3, Lines 20-55.** There is also an input device U input.

Merle fails to teach:

**Regarding Claims 28 and 46:** wherein the inductance is measured as a first electrical parameter.

Thalmann et al teaches:

**Regarding Claims 28 and 46:** The impedance is measured to determine the inductance of the coil as an electrical parameter.

In view of the teachings of Thalmann it would have been obvious to one of ordinary skill in the art at the time of the invention to include with the teachings of Merle, measuring the inductance of the coil since Thalmann teaches measuring the inductance of the heating coil for determining the configuration and forming a proper welding connection.

Merle also teaches:

**Regarding Claims 29-30:** A welding current is provided. The current being AC or DC and the frequency of the AC does not affect the method in a positive manner and is not

given patentable weight. The type of current desired may be determined with routine experimentation.

**Regarding Claims 31-33:** The current, frequency and resistance are monitored and corrected if they fall outside the determined boundaries. The current will affect the inductance. **See Column 3, Lines 20-55.**

**Regarding Claims 34 and 37:** The welding process is not started until the heating coil fitting has a desired resistance value. Thus, the resistance must be measured before the welding process. **See Column 3, Lines 20-25.**

**Regarding Claims 35-36:** The welding current or voltage is measured during the process. **See Column 3, Lines 40-55.**

**Regarding Claim 38:** The welding time is controlled based the welding current. **See Column 4, Lines 60-68.**

**Regarding Claims 41-43:** These are standard ways to measure inductance by routine calculations using widely known formulas. The voltage, current, resistance and frequency are all measured in the circuit in the figure.

**Regarding Claims 44-45:** Fig 1 has two measurement points for measuring the resistance at 27 and would be connected to the heating coil by h1 and h2.

**Regarding Claim 47:** The resistance measured from the coil by 27 in Fig 1, may be ohmic if the I-V relationship is linear.

**Regarding Claim 48:** Fig 1 shows a counter 17 from which the welding time may be adjusted.

**Regarding Claims 49-50:** Fig 1 shows a label 2 which data is provided in the form of a bar code and read by a scanner. **See Column 4, Lines 5-10.**

**Regarding Claims 51-52:** The welding voltage may be DC or AC. If AC the fundamental frequency will differ from that of the heating coil. **See Column 3, Lines 38-55.**

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN JENNISON whose telephone number is (571)270-5930. The examiner can normally be reached on M-Th 7:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN JENNISON/  
Examiner, Art Unit 3742

2/9/2010

/TU B HOANG/

Supervisory Patent Examiner, Art Unit 3742